

NON-PUBLIC?: N
ACCESSION #: 8905150298
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Millstone Nuclear Power Station Unit 1 PAGE: 1 OF 2

DOCKET NUMBER: 05000245

TITLE: Reactor Scram on Turbine Stop Valve Closure
EVENT DATE: 04/07/89 LER #: 89-005-00 REPORT DATE: 05/04/89

OPERATING MODE: POWER LEVEL: 080

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR
SECTION
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: Mark D. Cassidy, Engineer TELEPHONE: (203) 444-5276

COMPONENT FAILURE DESCRIPTION:
CAUSE: B SYSTEM: SN COMPONENT: LCO MANUFACTURER: M120
B SN V F130
REPORTABLE TO NPRDS: N
N

SUPPLEMENTAL REPORT EXPECTED: NO EXPECTED SUBMISSION DATE:

ABSTRACT:

On April 7, 1989 at 1238 hours, while the Unit was at 80 percent reactor power (530 degrees F and 1030 psig), as part of the shutdown for a scheduled refueling outage, a Reactor Scram occurred on Turbine Stop Valve Closure. As a result of the scram a Group II isolation occurred and the Standby Gas Treatment System (BH), which is an Engineered Safeguards System, initiated. The Turbine Stop Valve Closure signal was received from a Moisture Separator high level switch initiation. An investigation determined that Moisture Separator Drain Tank level control valve (LCV) (1-HD-17B) failed to maintain normal level in the drain tank. Tank condensate level was lost and steam entered the drain piping. This transient caused vibration of the associated piping which caused the false Moisture Separator high level switch (LS) actuation.

All systems functioned as required and no safety consequences resulted from this event.

END OF ABSTRACT

TEXT PAGE 2 OF 3

I. Description of Event

On April 7, 1989 at 1238 hours, while the Unit was at 80 percent reactor power (530 degrees F and 1030 psig) shutting down for a scheduled refueling outage, a Reactor Scram occurred as a result of a Turbine Stop Valve Closure. The Turbine Stop Valve Closure signal was initiated by a Moisture Separator high level switch actuation.

The licensed operators responded to the trip by performing ONP 502 Emergency Plant Shutdown. The Standby Gas Treatment System, which is an Engineered Safeguards System, initiated as required. No other systems were affected and the Unit was placed in a stable condition.

II. Cause of Event

Investigation of this event has concluded that the "A" Moisture Separator Normal Drain Valve (1-HD-17B) (LCV) failed to maintain normal level in the Moisture Separator drain tank. Level decreased to an extent that steam was allowed to enter the drain piping. This created a velocity surge and pressure transient in the piping with a resulting force sufficient to vibrate the associated piping and cause a false high level switch (LS) actuation. Specifically, this transient actuated the Moisture Separator high level switch which resulted in a "Turbine Trip Separator Drain Tank" alarm trip. This initiated a turbine trip logic, a turbine stop valve closure and subsequent reactor protection system scram. The instrumentation for valve (1-HD-17B) was inspected and the valve was found binding going in the full closed direction. Failure of the valve to fully close would allow continued drainage of the Moisture Separator Drain Tank. A loss of level in the Separator Drain Tank would allow steam to enter the drain piping. The valve will be completely disassembled, rebuilt and retested to insure proper operation.

III. Analysis of Event

This event is being reported pursuant to the requirements of 10CFR50.73(a)(2)(iv) due to automatic actuation of the Reactor Protection system and an Engineered Safeguards System. There were no safety consequences resulting from this reactor scram since all safety systems functioned to restore the Unit to a stable condition.

IV. Corrective Action

The valve will be disassembled and rebuilt during the present refueling outage. Upon assembly, the valve positioner will be adjusted to insure the normal required valve stroke for 1-HD-17B. In addition, the Unit is investigating the Turbine trip logic in an effort to prevent false Moisture Separator high level signals from initiating a reactor scram.

V. Additional Information

No previous LERs have been submitted relating to this event.

ATTACHMENT 1 TO 8905150298 PAGE 1 OF 1

General Offices Selden Street, Berlin Connecticut

NORTHEAST UTILITIES

The Connecticut Light And Power Company

Western Massachusetts Electric Company P. O. BOX 270

Holyoke Water Power Company HARTFORD, CONNECTICUT 064140-270

Northeast Utilities Service Company (203) 665-5000

Northeast Nuclear Energy Company

May 4 1989

MP 13041

Re: 10CFR50.73(a)(2)(iv)

U.S. Nuclear Regulatory Commission

Document Control Desk

Washington, D.C. 20555

Reference: Facility Operating License No. DPR-21

Docket No. 50-245

Licensee Event Report 89-005-00

Gentlemen:

This letter forwards Licensee Event Report 89-005-00 required to be submitted within thirty, (30) days pursuant to 10CFR50.73(a)(2)(iv).

Very truly yours,

NORTHEAST NUCLEAR ENERGY COMPANY

FOR: Stephen E. Scace

Station Superintendent

Millstone Nuclear Power Station

BY: Harry F. Haynes
Station Services Superintendent
Millstone Nuclear Power Station

SES/MDC:tjp

Attachment: LER 89-005-00

cc: W. T. Russell, Region I
W. J. Raymond, Senior Resident Inspector

*** END OF DOCUMENT ***
